CLAIMS

We claim:

1. A compound having the formula:

where Y₁ and Y₂, which may be the same or different, are each selected from the group consisting of hydrogen and a hydroxy-protecting group.

- 2. 2-methylene-19-nor-20(S)-25-methyl- 1α -hydroxycalciferol.
- 3. A pharmaceutical composition containing at least one compound as claimed in claim 1 together with a pharmaceutically acceptable excipient.
- 4. The pharmaceutical composition of claim 3 containing 2-methylene-19-nor-20(S)-25-methyl-1 α -hydroxycalciferol in an amount from about 0.01 μ g to about 100 μ g.
- 5. The pharmaceutical composition of claim 3 containing 2-methylene-19-nor-20(S)-25-methyl-1 α -hydroxycalciferol in an amount from about 0.1 μ g to about 50 μ g.
- 6. A method of treating metabolic bone disease where it is desired to maintain or increase bone mass comprising administering to a patient with said disease an effective amount of a compound having the formula:

where Y₁ and Y₂, which may be the same or different, are each selected from the group consisting of hydrogen and a hydroxy-protecting group.

- 7. The method of claim 6 where the disease is senile osteoporosis.
- 8. The method of claim 6 where the disease is postmenopausal osteoporosis.
 - 9. The method of claim 6 where the disease is steroid-induced osteoporosis.
- 10. The method of claim 6 where the disease is low bone turnover osteoporosis.
 - 11. The method of claim 6 where the disease is osteomalacia.
 - 12. The method of claim 6 where the disease is renal osteodystrophy.
 - 13. The method of claim 6 wherein the compound is administered orally.
- 14. The method of claim 6 wherein the compound is administered parenterally.
- 15. The method of claim 6 wherein the compound is administered transdermally.
- 16. The method of claim 6 wherein the compound is administered in a dosage of from $0.01\mu g$ to $100\mu g$ per day.
- 17. The method of claim 6 wherein the compound is 2-methylene-19-nor-20(S)-25-methyl-1α-hydroxycalciferol.
- 18. A method of treating psoriasis comprising administering to a patient with said disease an effective amount of a compound having the formula:

where Y₁ and Y₂, which may be the same or different, are each selected from the group consisting of hydrogen and a hydroxy-protecting group.

- 19. The method of claim 18 wherein the compound is 2-methylene-19-nor-20(S)-25-methyl- 1α -hydroxycalciferol.
- 20. The method of claim 18 wherein said effective amount comprises about 0.01μg/day to about 100μg/day of said compound.
- 21. A method of treating a cancerous disease comprising administering to a patient with said disease an effective amount of a compound having the formula:

where Y₁ and Y₂, which may be the same or different, are each selected from the group consisting of hydrogen and a hydroxy-protecting group.

- 22. The method of claim 21 where the disease is leukemia.
- 23. The method of claim 21 where the disease is colon cancer.
- 24. The method of claim 21 where the disease is breast cancer.
- 25. The method of claim 21 where the disease is prostate cancer.
- 26. The method of claim 21 wherein the compound is administered orally.
- 27. The method of claim 21 wherein the compound is administered parenterally.
- 28. The method of claim 21 wherein the compound is administered transdermally.
- 29. The method of claim 21 wherein the compound is 2-methylene-19-nor-20(S)-25-methyl- 1α -hydroxycalciferol.
- 30. The method of claim 21 wherein the compound is administered in a dosage of from $0.01\mu g$ to $100\mu g$ per day.
 - 31. (20S)-de-A,B-25-methylcholestan-8-one having the formula: